

IN THE CLAIMS:

Please cancel claim 18 without prejudice, and add new claims 22-47, as shown below. For the examiner's convenience, all pending claims are reproduced below with the unamended claims shown in small print.

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18. ~~(Canceled)~~

Please add the following new claims:

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22. (New) A method for copying a multi-page document comprising:

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scanning in a plurality of document pages to capture image data for each of the

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plurality of pages;

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storing the image data for each of the plurality of pages; and

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comparing the image data for each of the plurality of pages to identify twice

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scanned pages.

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23. (New) The method of claim 22 further comprising:

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displaying a warning message upon identifying a twice scanned page during the

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comparison.

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24. (New) The method of claim 22 further comprising:

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printing copies of the plurality of pages based on the image data, wherein for

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each twice scanned page identified in the comparing step, a single copy is printed.

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25. (New) A copier comprising:

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a scanner configured to scan a plurality of pages to capture image data for each

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page of the plurality of pages;

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a feature extractor module configured to extract a feature set for each page of

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the plurality of pages from the image data for the page;

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a comparator module configured to perform comparisons between the extracted

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feature sets for the plurality of pages to identify pages from the plurality of pages which have

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been scanned more than once; and

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9 a printing module configured to print the plurality of pages based on the image
10 data for the pages, wherein a single copy is printed for image data corresponding to the pages
11 which have been scanned more than once.

1 26. (New) The method of claim 25 wherein the comparator module uses
2 Hausdorff distance metrics to perform the comparison.

1 27. (New) The method of claim 25 wherein the comparator module uses
2 Euclidean distance metrics to perform the comparison.

1 28. (New) The method of claim 25 wherein the feature set for each page
2 from the plurality of pages comprises CCITT Group IV pass codes.

1 29. (New) An apparatus for performing a first function on a plurality of
2 pages, the apparatus comprising:

3 a scanner configured to scan the plurality of pages to capture image data for
4 each page of the plurality of pages;

5 a feature extractor module configured to extract a feature set for each page of
6 the plurality of pages from the image data for the page;

7 a comparator module configured to perform comparisons between the extracted
8 feature sets for the plurality of pages to identify pages from the plurality of pages which have
9 been scanned more than once; and

10 a function module configured to perform the first function on the plurality of
11 pages based on the image data for the pages, wherein the first function is performed once on
12 image data corresponding to the pages which have been scanned more than once.

1 30. (New) The apparatus of claim 29 wherein the first function comprises
2 copying the plurality of pages.

1 31. (New) The apparatus of claim 29 wherein the first function comprises
2 faxing the plurality of pages.

1 32. (New) The apparatus of claim 29 wherein the first function comprises
2 communicating the plurality of pages via a communication link.

1 33. (New) The apparatus of claim 29 wherein comparator module uses
2 Hausdorff distance metrics to perform the comparisons.

1 34. (New) The apparatus of claim 29 wherein comparator module uses
2 Euclidean distance metrics to perform the comparisons.

1 35. (New) A method of performing a first function on a plurality of pages,
2 the method comprising:

3 scanning the plurality of pages to capture image data for each page of the
4 plurality of pages;

5 extracting a feature set for each page of the plurality of pages from the image
6 data for the page;

7 performing comparisons between the extracted feature sets for the plurality of
8 pages to identify pages from the plurality of pages which have been scanned more than once;
9 and

10 performing the first function on the plurality of pages based on the image data
11 for the pages, wherein the first function is performed once on image data corresponding to the
12 pages which have been scanned more than once.

1 36. (New) The method of claim 35 wherein performing the first function
2 comprises printing a single copy of the image data corresponding to the pages which have been
3 scanned more than once.

1 37. (New) The method of claim 35 wherein performing the first function
2 comprises faxing a single copy of the image data corresponding to the pages which have been
3 scanned more than once.

1 38. (New) The method of claim 35 wherein performing the first function
2 comprises communicating a single copy of the image data corresponding to the pages which
3 have been scanned more than once.

1 39. (New) The method of claim 29 wherein performing the comparisons
2 between the extracted feature sets comprises using Hausdorff distance metrics to perform the
3 comparisons.

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1 40. (New) The method of claim 29 wherein performing the comparisons
2 between the extracted feature sets comprises using Euclidean distance metrics to perform the
3 comparisons.

1 41. (New) A computer program product stored on a computer-readable
2 medium for performing a first function on a plurality of pages, the computer program product
3 comprising:

4 code for scanning the plurality of pages to capture image data for each page of
5 the plurality of pages;

6 code for extracting a feature set for each page of the plurality of pages from the
7 image data for the page;

8 code for performing comparisons between the extracted feature sets for the
9 plurality of pages to identify pages from the plurality of pages which have been scanned more
10 than once; and

11 code for performing the first function on the plurality of pages based on the
12 image data for the pages, wherein the first function is performed once on image data
13 corresponding to the pages which have been scanned more than once.

1 42. (New) The computer program product of claim 41 wherein the code for
2 performing the first function prints a single copy of the image data corresponding to the pages
3 which have been scanned more than once.